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ABSTRACT

Four influential studies on school effectiveness reported by Brookover and Lezotte (1979), Edmonds and Frederiksen (1979), Phi Delta Kappa (1980), and Rutter and others (1979) are limited in their usefulness as recipes for creating effective schools by the following four issues: (1) The four studies differ in their definition of what "effectiveness" means. This variety of definitions should alert practitioners to the inadequacy of generalizing from these studies and the need to develop their own concept of effectiveness tailored to their particular situations. (2) The studies' lack of agreement on which characteristics most contribute to school effectiveness, and discrepancies between their conclusions and specific findings, should encourage practitioners to develop their own list of situation-tailored effectiveness characteristics. (3) The reliability of the studies' results is made questionable by the use of standardized, norm-referenced tests as indicators of academic achievement and by other aspects of the studies' research techniques and strategies. (4) Practitioners should be aware that the studies indicate correlations rather than causal relations, and thus refrain from using the studies as a recipe for creating effective schools. They should also heed the studies' emphasis on the importance of characteristics' interaction over any single characteristic. (JBM)

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THE EFFECTIVE SCHOOLS MOVEMENT: STUDIES, ISSUES, AND APPROACHES

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THE EFFECTIVE SCHOOLS MOVEMENT: STUDIES, ISSUES, AND APPROACHES

Introduction

In the early 1970s, educational researchers started systematically examining schools in an attempt to dispell a public perception -- created in part by the educational research community, itself -- that schools had little effect on students' achievement and success when compared to the effects that their family background and socioeconomic situation had. The initial goals of these examinations were to demonstrate that some schools do have a beneficial effect on students' achievement and success and to identify factors controllable in the schools that influence that achievement and success[2].

For the most part the studies and reports that resulted from these investigations met these goals. Study after study described schools that were effective and named characteristics which seemed to be associated with that effectiveness. As this evidence seemed to mount, however, there came a shift in emphasis from theory and research to policy and practice. The discovery of schools that were effective irrespective of the family, social, or economic conditions of their students, brought on a movement to use these effective schools and their characteristics as models for school improvement. As this

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[1]For example, some of the conclusions reported by Coleman et al. 1966; Jencks et al. 1972; and various National Assessment of Educational Progress (NAEP) reports, for example, NAEP, 1977 and NAEP, 1979.

[2]See for example, Brookover et al. 1978; California State Department of Education, 1977; Edmonds, 1977; Rutter et al. 1979; and Weber, 1971.

movement gained momentum, effective schools studies became so influential that they were used, in some cases, as a basis for far-reaching educational policy decisions and large-scale school improvement initiatives[3]. In short, they were used as recipes for creating effective schools.

Recently, however, a number of questions have been raised about effective schools studies. A growing number of authors are pointing out that, although the studies' results seem to make sense and seem to be on the right track, there are serious limitations to them.

What follows is a brief overview of some issues stemming from questions raised about four effective schools studies which, in the opinion of many, suggest that these studies should not be used as recipes for creating effective schools. It should be noted that no one (including this author) believes that these studies are wrong or poorly done. On the contrary, most look at the results and conclusions of these studies as providing insights into school effectiveness and success that can benefit school improvement. The issues outlined in this overview are not meant to diminish these contributions. Rather they are raised as a caution to practitioners and policy makers against using these studies as recipes for creating effective schools.

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[3]For example, Ronald Edmonds (1981) has described several large-scale initiatives based on effective schools studies undertaken in New York City, Milwaukee, St. Louis, New Jersey, and Connecticut. Both Dale Mann (1980) and Daniel Levine (in a personal communication, December 10, 1980) have asserted that the number of these effective schools improvement initiatives seems to be growing.

Four Studies and Four Issues

Four studies of school effectiveness seem to have exerted a great deal of influence on educators and the results of these studies are the ones most typically underlying school effectiveness improvement initiatives. These studies are the ones reported by Brookover and Lezotte (1979), Edmonds and Frederiksen (1979), Phi Delta Kappa (Duckett et al. 1980), and Rutter et al. (1979). There are four issues, however, associated with these studies which limit the degree to which they can be used as recipes for creating effective schools. These issues have to do with:

- the definitions of "effectiveness";
- the match between specific findings and general conclusions;
- the reliability of the results; and
- the practicality of using the findings and conclusions.

Definitions of Effectiveness

The first issue that limits the usefulness of these studies and that practitioners often overlook when attempting to translate the results into improvement initiatives centers on the question, "What does 'effectiveness' mean?" In these four studies, there is a great deal of variety in the way this question is answered. Each set of authors seems to have a different conception of an effective school. In fact, each uses a different term to describe it (see Illustration 1).

Illustration 1

Term	Improving Schools	Effective Schools	Exceptional Schools	Schools That Differ
	Brookover & Lezotte (1979)	Edmonds & Frederiksen (1979)	Phi Delta Kappa (1980)	Rutter et al., (1979)
Definition	Schools which between 1974 and 1976 showed an increase of 5% or more of fourth grade students who could master at least 75% of the objectives tested by a math and reading test while simultaneously showing a 5% decrease in the ones who could only master less than 25% of the same objectives.	Schools where more than half of the sixth grade students scored at or above the 75th percentile on a verbal aptitude test.	Schools that showed a positive change in any one or a combination of: student achievement; student attitudes toward school or themselves as learners; teacher attitudes toward school or students as learners; community/parent attitudes toward school.	Schools that were different in terms of students' exam success, attendance, behavior, and delinquency rates.

Edmonds and Frederiksen, for example, define effectiveness rather narrowly, linking it to scores on verbal aptitude tests. Brookover and Lezotte see it as a function of improved math and reading test scores. The Phi Delta Kappa authors and Rutter et al. view effectiveness more broadly than this. The former include student, teacher, and parent attitudes while the latter look at attendance, behavior, and delinquency rates in addition to test scores. Even where there seems to be some commonality -- that is, in the inclusion of improved academic achievement in each definition -- there is still considerable variety. In each study, the gauge and focus of that achievement are quite different: from percentage increases in reading aptitude (Edmonds and Frederiksen), to simultaneous increases and decreases in math and reading test scores (Brookover and Lezotte), to passing grades on national comprehensive examinations (Rutter et al.) to a pot pourri of school-determined, standardized, and curriculum-specific test results (Phi Delta Kappa).

The issue has nothing to do with whether any of these definitions are better than any others. Nor is there any issue over whether these definitions are good ones, or even appropriate ones. The issue is whether these definitions have enough in common to be seen and used as if they described one unified concept, "effectiveness." For the most part, they do not. They seem to vary according to what the authors think are important outcomes of schooling. In some cases, they focus strongly on improved basic skills achievement; in other cases, they

include other dimensions such as enhanced self-concept and high rates of attendance. This variety should alert practitioners to avoid trying to generalize a state of school effectiveness based on these studies. Rather, practitioners should recognize that school effectiveness may be an idiosyncratic concept. It may be different for different schools and for different school districts. It may be focused narrowly on basic skills achievement as most effective schools initiatives are[4]. Or, it may go beyond basic skills achievement to include outcomes which many authors believe to be equally important such as the ability to solve problems, apply information, adapt to new social situations, and so on.[5] In short, practitioners need to develop their own concept of effectiveness tailored to their particular situations.

Match Between Findings and Conclusions

Each of the four studies noted above includes a summation, a set of general conclusions which, in effect, describes characteristics of "effective" schools. The issue of match revolves around these characteristics, how well they match from study to study, and how accurately they reflect the specific findings of the research contained in the studies (see Illustration 2).

Although the characteristics with which these authors conclude their studies seem in some cases to be similar to each other, they do

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[4]See for example, the New Jersey Education Association's Urban Education Committee report to the Delegate Assembly (May 16, 1981), Ronald Edmonds' remarks as reported in Report on Education Research (Inner City Schools, 1980), and Dale Mann's remarks at the Third Tri-State Conference on Improving Basic Skills (1980).

[5]See for example, Banks, 1979; Brimer et al. 1978; Eigerman, 1980; Lightfoot, 1978.

Illustration 2

Study	Brookover & Lezotte (1979)	Edmonds* (1981)	Phi Delta Kappa (1980)	Rutter et al., (1979)
Characteristics	• Improving schools accept and emphasize the importance of basic skills mastery as prime goals and objectives; • Staff of improving schools believe all students can master the basic skills objectives and they believe the principal shares this belief; • Staff of improving schools expect their students will go on with their education; • Staff of improving schools do not make excuses: they assume responsibility for teaching basic skills and are committed to do so; • Staff of improving schools spend more time on achieving basic skills objectives; (continued on next page)	• Clarity that pupil acquisition of the basic school skills takes precedence over all other school activities; • A climate of expectation in which no children are permitted to fall below minimum but efficacious levels of achievement; • Strong administrative leadership without which the disparate elements of good schooling can be neither brought together nor kept together; • Presence of a means by which pupil progress can be frequently monitored; • An atmosphere that is orderly without being rigid, quiet without being oppressive, and generally conducive to the instructional business at hand.	• Successful schools are characterized by clearly stated curricular goals and objectives; • The leaders' attitudes toward urban education and expectations for school or program success determine the impact of the leader on exceptional schools; • The behavior of of the designated school or program leader is crucial in determining school success; • Successful urban schools frequently employ techniques of individualized instruction; • Structured learning environments are particularly successful in urban classrooms; (continued on next page)	• Outcomes were better in schools where teachers expected the children to achieve well; • Outcomes were better in schools that provided pleasant working conditions for the pupils; • Outcomes were better in schools where immediate, direct praise and approval were the prevelant means of classroom feedback; • Outcomes were better in schools where teachers presented themselves as positive role models demonstrating punctuality, concern for the physical well-being of the school building, concern for the emotional well-being of the pupils, and restraint in the use of physical punishment; • Children's behavior was better in schools where teachers were readily available to be consulted by children about problems and where many children were seen by teachers; (continued on next page)

Illustration 2
(continued)

Study	Brookover & Lezotte (1979)	Edmonds* (1981)	Phi Delta Kappa (1980)	Rutter et al., (1979)
Characteristics	• Principals at improving schools are assertive instructional leaders and disciplinarians, and they assume responsibility for the evaluation of the achievement of basic skills objectives; • Staff at improving schools accept the concept of accountability and are involved in developing (or using) accountability models; • Teachers at improving schools are not very satisfied or complacent about the status quo; • There is more parent-initiated contact and involvement at improving schools (even though the overall amount of parent involvement is less); • The compensatory education programs in improving schools de-emphasize paraprofessional involvement and teacher involvement in the selection of Comp-Ed-bound students.		• Reductions in adult/child ratios are associated with positive school performance; • Successful schools are often supported with special project funds from federal, state, and local sources; • Successful urban schools are characterized by high levels of parental contact with the school and parental involvement with school activities; • Successful schools frequently use staff development or in-service training programs to realize their objectives; • The greater the specificity or focus of the training program in terms of goals or processes, the greater the likelihood of its success; • Resource and facility manipulations alone are insufficient to affect school outcomes.	• Outcomes were better in schools where a high proportion of children held some kind of position of responsibility in the school system; • A school's atmosphere is influenced positively by the degree to which it functions as a coherent whole, with agreed ways of doing things which are consistent throughout the school and which have the general support of all staff.

*Edmonds' characteristics are drawn from a later report. They do not come from his and Frederiksen's 1979 study.

not match. The number of characteristics is different in each study. Also, the characteristics that seem similar are expressed differently. Lastly, some characteristics seen as "indispensable" by some authors -- for example, strong administrative leadership -- are not included at all by others.

This absence of match from study to study poses an obstacle for practitioners who attempt to use these conclusions as a recipe. Without more unanimity about which characteristics contribute to a school's effectiveness, it is difficult to know which characteristics to use as a focus for improvement. And, the studies offer little guidance for selecting the most appropriate.

A more serious obstacle is the low degree of match between some studies' conclusions and their specific findings. A careful comparison shows that Brookover and Lezotte, Edmonds and Frederiksen, and the Phi Delta Kappa authors seem to have done quite a bit of interpretation when translating their findings into conclusions.

For example, both Brookover and Lezotte and the Phi Delta Kappa authors based their conclusions on specific findings from a variety of data sources -- interviews, questionnaires, case studies, expert opinions, and the like. Taken altogether, the specific findings of these different data sources indicate literally dozens of characteristics associated with school effectiveness. Even accounting for repetition, the specific findings of these studies show many more characteristics than those listed in the studies' summaries. Also, the characteristics listed as the findings of each data source are much more specific and detailed than the characteristics in either set of

conclusions. Moreover, there is no indication in either study how the summary statements were distilled from the larger, more detailed body of results. The conclusions are interpretations of the results, but the authors do not explain how they made them.[6]

Edmonds and Frederiksen present another kind of problem regarding the match between specific results and general conclusions. They conclude their study with 21 characteristics which describe an eclectic variety of phenomena from number of guidance counselors to number of land acres. These apparently reflect their research findings and -- in this study -- there are no further conclusions. In an earlier work, however, Edmonds lists five "indispensable" characteristics of effective schools.[7] These five characteristics appear again in two more recent discussions.[8] They are the ones listed in Illustration 2 and are probably the most well-known characteristics of effectiveness. These characteristics are not the ones that Edmonds and Frederiksen list in their 1979 study. In the 1979 study, they list characteristics that are more specific; also they list more of them and they cover more dimensions of schooling. These five do not seem to

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[6]More recently, Brookover (1981) has gone further and named twenty-one characteristics of schools with "effective school learning climates" divided into three categories -- ideology, organization, and instructional practices. Although this new list draws on both the specific findings and general conclusions of the 1979 study, some characteristics have been dropped (e.g., the one involving teacher selection of Comp-Ed students) and others added (e.g., presence of cooperative team learning).

[7]Edmonds, 1978.

[8]Edmonds, 1980 and Edmonds, 1981

come from the longer 1979 list. And, it is unclear what research was used to arrive at these five characteristics.

In sum, the degree to which the overall conclusions of these four studies match each other, match their specific findings, and are derived from the specific findings deserves attention, particularly if they are to be used as a basis for creating effective schools. Practitioners should be aware that these studies show that there are many characteristics of effectiveness and that not all of them appear in all the schools studied. In fact, the studies seem to show that "effectiveness" involves many diverse characteristics. Quite possibly these characteristics are idiosyncratic to specific schools. In fact, it may be that there is no one set of universally applicable characteristics of effectiveness even though some of the same characteristics may apply in different situations. When creating effective schools, practitioners would do well to use the characteristics outlined in the studies as a framework. However, they also should look for characteristics that may go beyond those described in the studies and which may have greater influence in their school or district. So in addition to developing their own concept of effectiveness tailored to their own situation, practitioners should develop their own list of characteristics of effectiveness. These too should be tailored to fit the situation.

Reliability of Results

Objections that have been raised about the reliability of these studies' results also should encourage practitioners to go beyond them when attempting to create effective schools. One objection has to do

with the measurement of academic achievement. Simply stated, there is a question as to whether the scores of the standardized, norm-referenced tests typically used to measure academic achievement in most of these studies are adequate indicators of achievement. Because these tests do not necessarily reflect a particular school's individual curriculum focus or achievement goals and because they are often presented as school-wide or district-wide averages, many have expressed skepticism over their usefulness as realistic barometers of a school's effectiveness.[9]

Other objections question aspects of the studies' research techniques and strategies.

A number of authors, for example, have noted that the studies use methodological approaches which may color both specific findings and general conclusions. Questions over the studies' use of surveys, student test results, interviews, and questionnaires as data sources have been raised in this regard. Issues of sample size and selection procedures also have contributed to the question of the reliability of the studies' findings.[10] There is even some question whether the major goal of these studies, isolating a set of factors of effectiveness, contributes to the unreliability of their findings.[11]

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[9] See for example, Bridge, Judd, and Moock (1979); Brimer et al. (1978); Madaus et al. (1979); and Cuttace (1982).

[10] See for example, Brimer et al. 1978; Cuttace, 1982; Madaus et al. 1979; Rowen et al. 1982; Scott and Walberg, 1979; Turner and Celso, 1982; and Walberg, 1982.

[11] See for example, Cuttace, 1982; Rowen et al. 1982; and Walberg, 1982.

Although in some cases technical, these issues are not trivial. They illustrate the need for a more-than-casual analysis of these school effectiveness studies before using them as recipes to create an effective school. The issues -- and the authors who raise them -- suggest that these studies might have had different conclusions had different test instruments or methodological approaches been used. This implies that there may be alternative conclusions about what makes a school effective and that there may be alternative ways to make it that way. In fact, there are many other studies of student achievement, school effectiveness, and factors that influence both which do draw different conclusions.[12] Practitioners should be aware of these alternatives and be ready to weigh each improvement option they suggest carefully before selecting which will be the focus of an improvement initiative.

Practicality of the Findings and Conclusions

The final issue associated with these studies is probably the most crucial. The issue is whether the results and conclusions of these studies can be put into practice and it revolves around questions of causality and interaction.

Over and over again in the course of their descriptions, the authors of these studies emphasize that they are outlining correlations (ones that occur at the same time), not causal relations (ones that

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[12] See for example, Benbow and Flaxman, 1980 and 1981; Glasman and Biniaminov, 1981; Gordon, 1979; and Walberg, 1982.

make each other happen).[13] The significance of this distinction is an important one for practitioners. It means that these studies' results and conclusions should not be interpreted as a recipe for creating an effective school for the authors themselves cannot be sure that a school is effective because it has the characteristics described.[14] Most of the authors are candid about this and all warn against using the findings as a recipe. It is a warning practitioners should not ignore.

Practitioners should not ignore another significant caveat from the authors of these studies -- a caveat about the interaction of characteristics. In outlining their results all of the authors either state or suggest strongly that it is the interaction of characteristics that leads to higher student achievement and success and to school effectiveness. Some go even further, noting a number of characteristics that were not included in their studies that they feel are involved in this interaction.[15]

This stress on the importance of interaction adds another problem for

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[13] Rutter et al. 1979 say their results show correlations that "infer" causal relations (p. 181). This statement has been the source of much of the criticism of their work (See for example, Cuttace, 1982).

[14] Some like Rowen et al. 1982 even suggest the opposite: that certain characteristics exist because the school is effective or because student achievement is high.

[15] Rutter et al. mention a balance between academically able and academically less able student populations. Brookover (1981) mentions cooperative team learning. Edmonds (1981) alludes to interest, support, and assistance from state or district educational agencies and their personnel.

practitioners. In effect it introduces a new characteristic of effectiveness -- the interaction itself. Although all of the studies say this interaction is critical to school effectiveness, none are specific about the nature of this interaction. Moreover, none offer any guidance for helping practitioners develop it or take advantage of it.

Yet it is fairly clear from these studies that a synergistic approach is the best one for creating an effective school. That is, practitioners must look not only for the impact of individual characteristics on their school's effectiveness, but also for the way those characteristic work together. And, they must not focus only on maximizing the influence of each characteristic but rather on maximizing the influence of all the characteristics as they interact to result in an effective school.

Conclusions

Effective schools studies have provided educational practitioners and policy makers with nearly overwhelming evidence that effective schools exist. They have described many schools that probably influence student achievement and success as much as or more than family background and socioeconomic situation. But they have not provided practitioners with a recipe for creating effective schools.

School effectiveness seems to be a complex phenomenon and creating an effective school is likely to be a complex process. It is not one that can be undertaken by following a recipe. The effective schools studies are useful, however, because they provide a framework which practitioners can combine with their own knowledge about their own schools to:

- o determine the best definition of effectiveness for a school;
- o decide which school outcomes are or should be associated with the definition;
- o select school-focused indicators of success that reflect the definition for each outcome;
- o assess the school to identify characteristics that promote this success or prevent it and determine how the characteristics influence each other; and
- o develop a school-based plan to maximize the characteristics as they interact to promote school effectiveness.

Effective schools seem to exist. Hundreds of them have been described. Each one's effectiveness, however, seems to represent an intricate -- perhaps idiosyncratic -- phenomenon which, in turn, is probably the result of intricate -- perhaps idiosyncratic -- processes. As yet, there are no recipes for creating effective schools.

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